

Notice of Allowability

Application No. 09/972,078	Applicant(s) ERYUREK ET AL.	
Examiner Michael B. Holmes	Art Unit 2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- 1. This communication is responsive to November 11, 2005.
 - 2. The allowed claim(s) is/are 1-31.
 - 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some* c) None of the:
 - 1. Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____.
 - 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 - 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
- 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2. Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3. Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
- 4. Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application (PTO-152)
- 6. Interview Summary (PTO-413), Paper No./Mail Date _____.
- 7. Examiner's Amendment/Comment
- 8. Examiner's Statement of Reasons for Allowance
- 9. Other _____.



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Examiner's Detailed Office Action

1. Claim 20 has been canceled.
2. Claims 1-31 are allowed.

Examiner's Amendment

3. In a telephonic conference call (Wednesday, November 30, 2005), Judson K. Champlin, Attorney, Reg. No. 34,797, authorized the examiner to amend the numbering of claims 20-31 and correct their respective dependencies. An Interview Summary has been included.

4. Regarding claims 20-31:

20. (currently amended): The method of claim 17 wherein the rule base provides a relationship between the process signals and a root cause of an aberration in the process.

21. (currently amended): The method of claim 17 wherein each model includes a plurality of rule bases, each rule base related to the number of process signals.

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22. (currently amended): A PC implementing the method of claim 17.

23. (currently amended): A process device implementing the method of claim 17.

24. (currently amended): The method of claim 17 wherein the model includes a graphical model and the method including displaying a graphical representation of the physical implementation of the process.

25. (currently amended): The method of claim 17 wherein the plurality of process signals comprise a primary process variable (PV), a control demand (CD) signal, and a setpoint (SP).

26. (currently amended): The method of claim 25 wherein the plurality of process signals further includes a process signal indicative of an actual control value provided in response to the control demand (CD).

27. (currently amended): The method of claim 25 wherein the plurality of process signals further includes a redundant primary process variable (PV).

28. (currently amended): The method of claim 17 wherein at least one of the plurality of process models is representative of a liquid level process control loop.

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29. (currently amended): The method of claim 17 wherein at least one of the plurality of process models is representative of a process fluid flow control loop.

30. (currently amended): A storage medium containing computer instructions configured to implement the method of claim 17.

31. (currently amended): An industrial process diagnostic apparatus for identifying a root cause of an aberration in an industrial process, comprising: means for storing a plurality of process models, each model related to a physical implementation of an industrial process; means for receiving a model selection input uniquely identifying one of the process models; means for receiving a plurality of process signals related to the process; and means for identifying a root cause indicative of a source of the aberration in the process as a function of the selected model and the process signals.

REASONS FOR ALLOWANCE

5. Applicant's arguments filed November 03, 2004, regarding claims 1-31 have been fully considered and are persuasive. As aforementioned claims 1-31 are allowed.

6. The terminal disclaimer filed July 23, 2004 disclaiming the terminal portion of any patent granted on this application, which would extend beyond the expiration date of U.S. Patent 6,397,114 B 1 has been reviewed and is accepted. The terminal disclaimer has been recorded.

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Correspondence Information

7. Any inquires concerning this communication or earlier communications from the examiner should be directed to Michael B. Holmes, who may be reached Monday through Friday, between 8:00 a.m. and 5:00 p.m. EST. or via telephone at (571) 272-3686 or facsimile transmission (571) 273-3686 or email Michael.holmesb@uspto.gov.

If you need to send an Official facsimile transmission, please send it to (571) 273-8300.

If attempts to reach the examiner are unsuccessful the Examiner's Supervisor, Anthony Knight, may be reached at (571) 272-3687.

Hand-delivered responses should be delivered to the Receptionist @ (Customer Service Window Randolph Building 401 Dulany Street Alexandria, VA 22313), located on the first floor of the south side of the Randolph Building.

Michael B. Holmes

Patent Examiner

Artificial Intelligence

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United States Department of Commerce

Patent & Trademark Office

Thursday, September 22, 2005

MBH



Anthony Knight
Supervisory Patent Examiner
Group 3600